

# Current Glider Track and Location

## 04/06/2011 @ 0550 Local

### Glider Position Forecast

#### Waypoints

Current Waypoint (CW)

4/06/11 ~0550 Local

G7 4/06/11

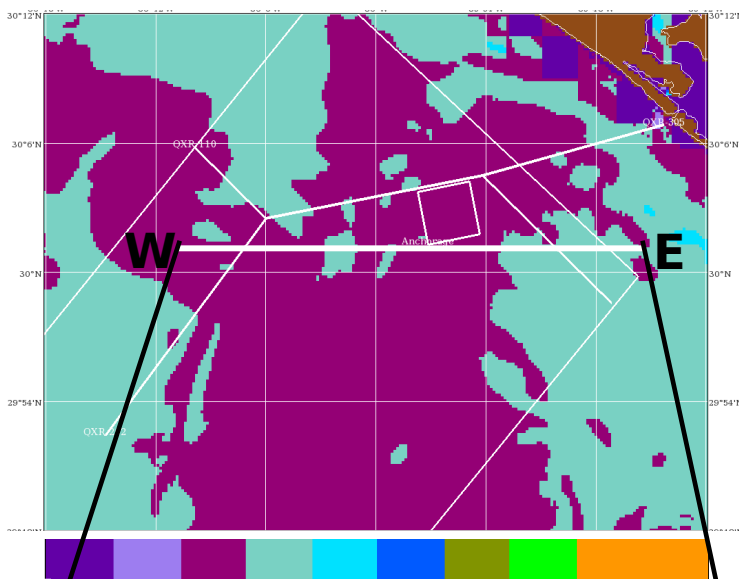
G3 4/07/11

G2 4/08/11

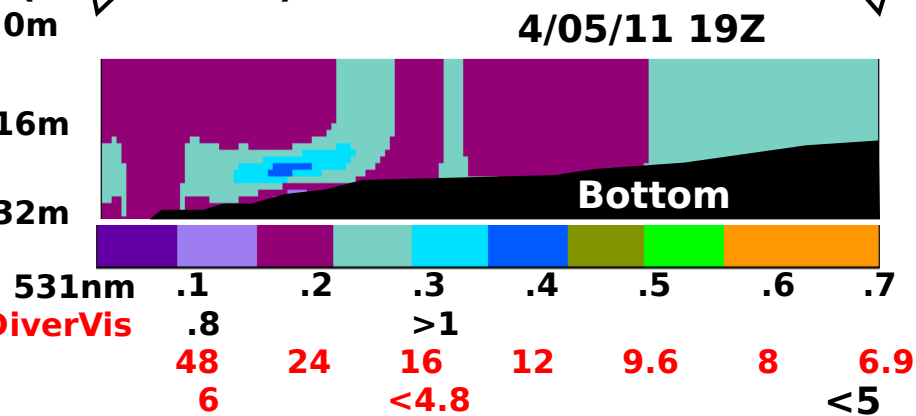


# Nowcast AQS-24 Support for April 05, 2011 19Z

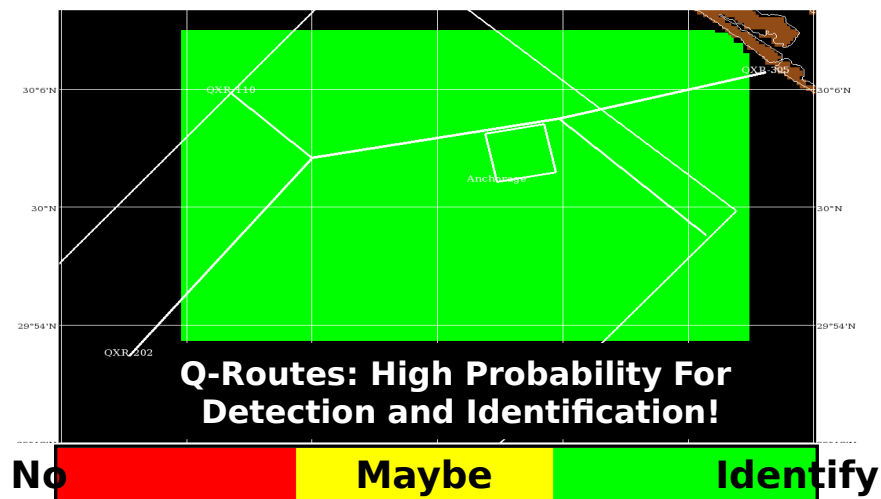
## Surface Beam-c / Diver Visibility 4/05/11 19Z



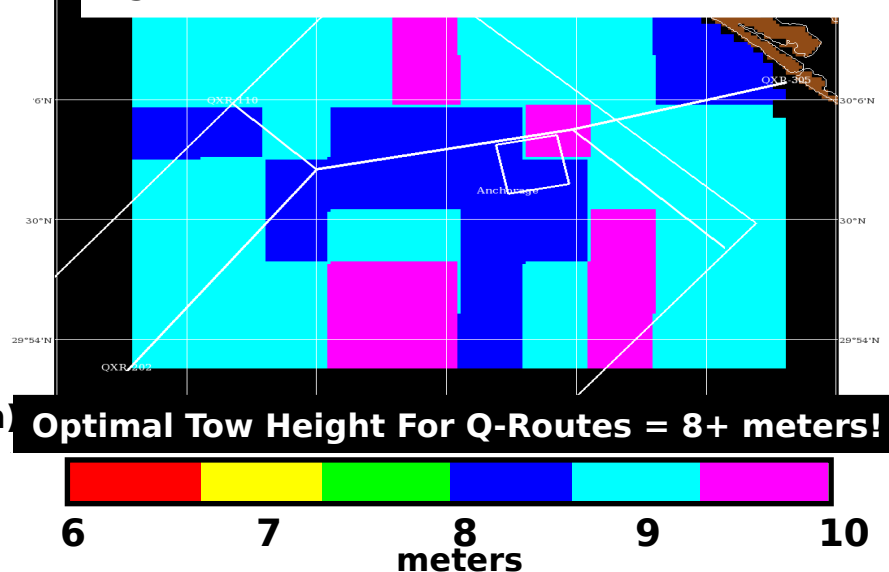
**c**  
**531nm**  
**m**  
**Diver**  
**Vis**  
**3D Beam-c / Diver Visibility Slice**  
**(West->East)**  
**4/05/11 19Z**



## Target Identification @ 6m Tow Altitude 4/05/11 19Z



## Optimal Tow Altitude - 4/05/11 19Z



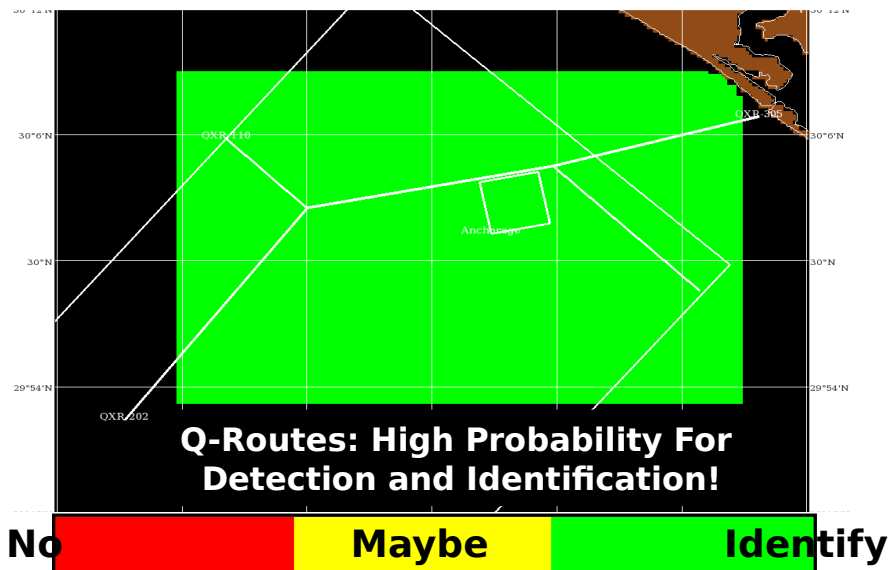
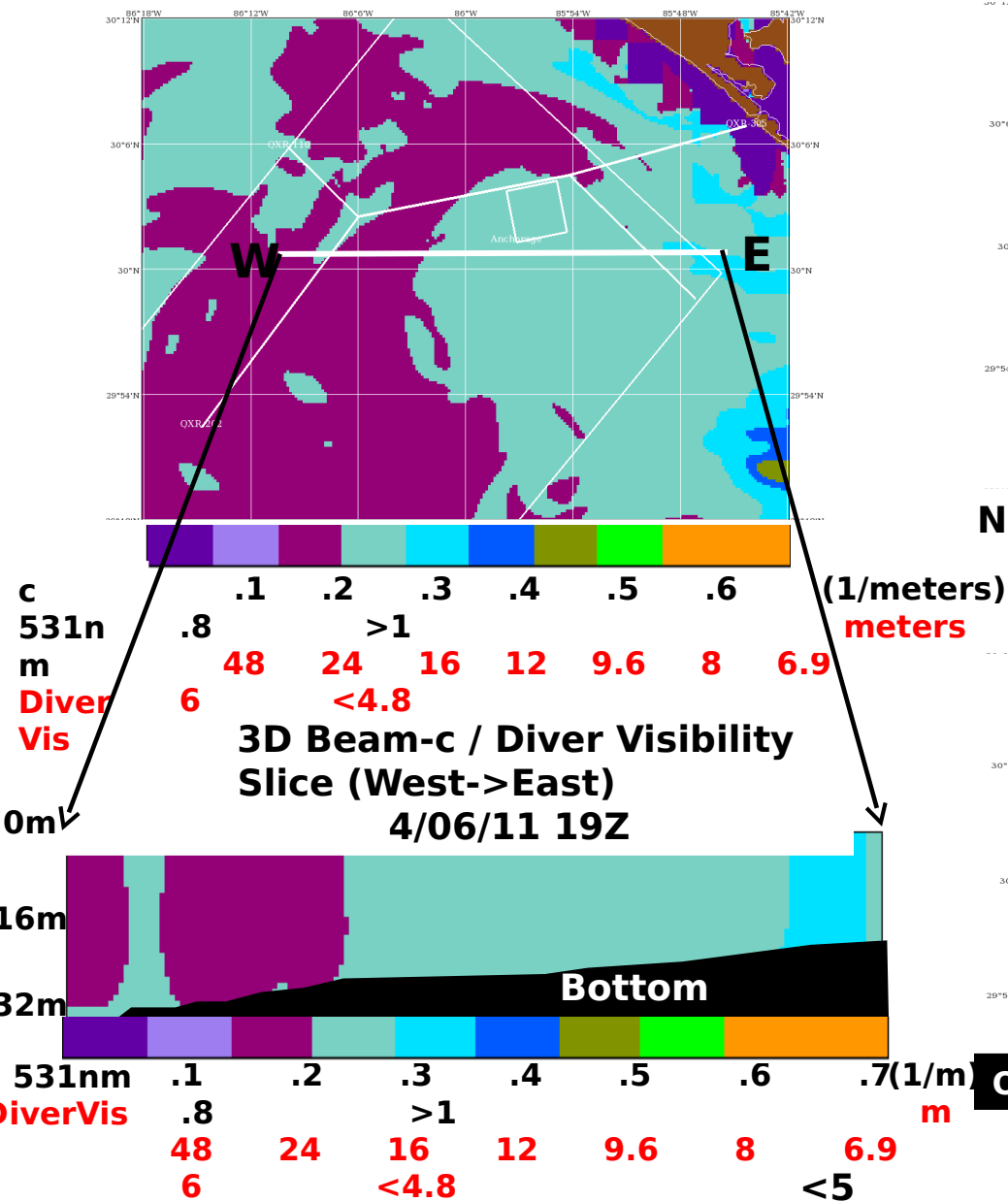
# 24 Hour Forecast AOS-24 Support for April 06, 2011 19Z

Surface Beam-c / Diver Visibility

4/06/11 19Z

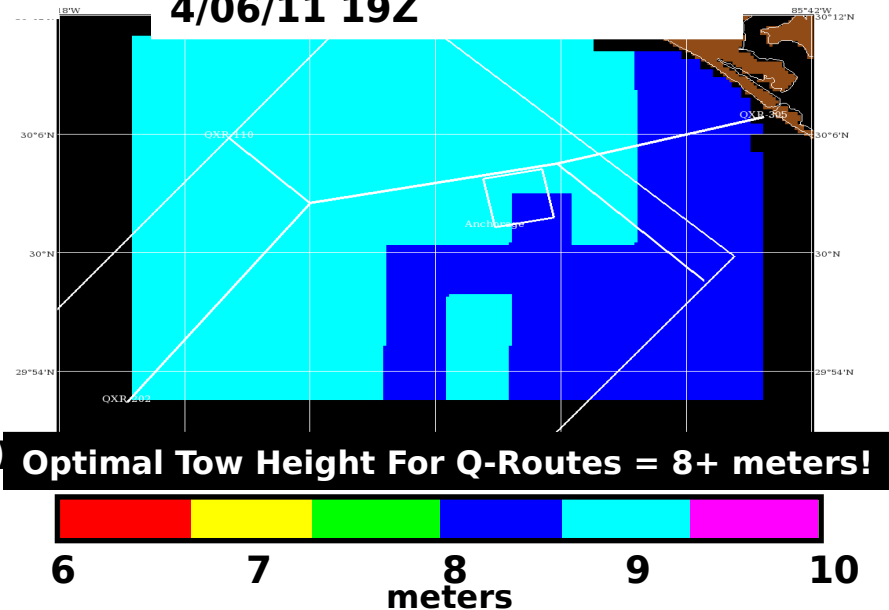
Target Identification @ **6m** Tow Altitude

4/06/11 19Z



Optimal Tow Altitude

4/06/11 19Z



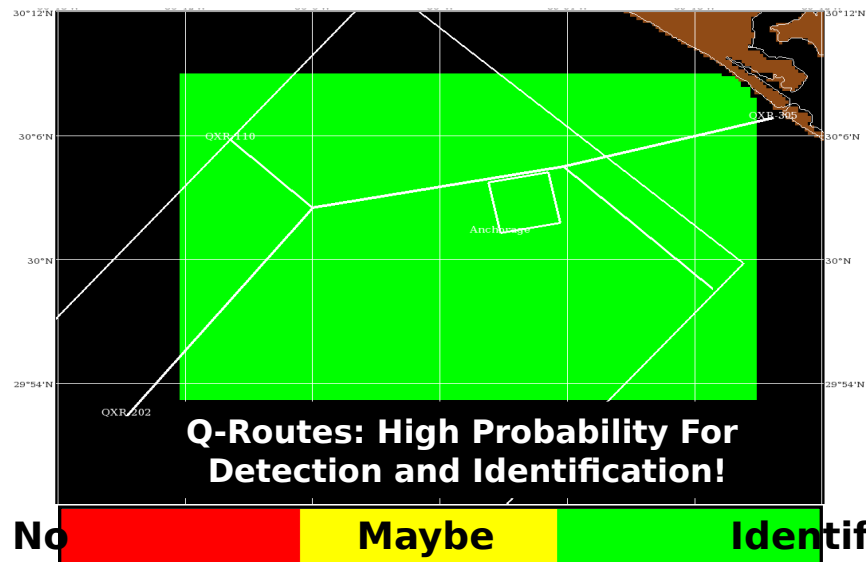
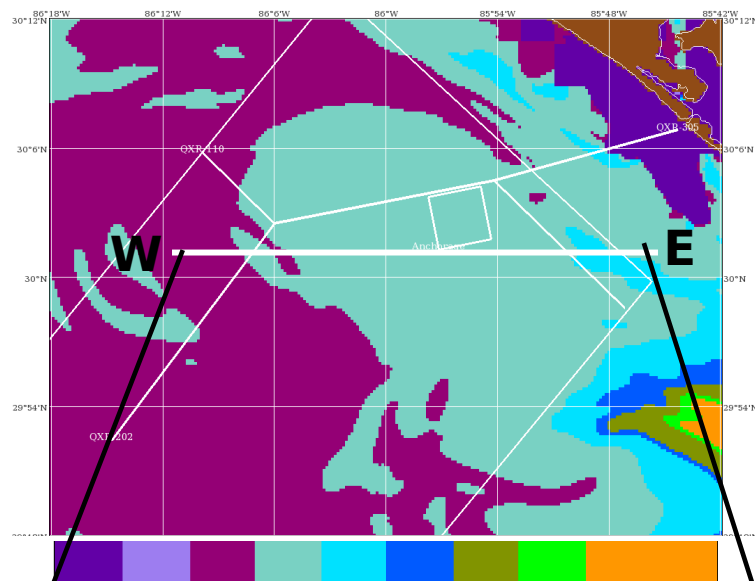
# 48 Hour Forecast AOS-24 Support for April 07, 2011 19Z

Surface Beam-c / Diver Visibility

4/07/11 19Z

Target Identification @ **6m** Tow Altitude

4/07/11 19Z

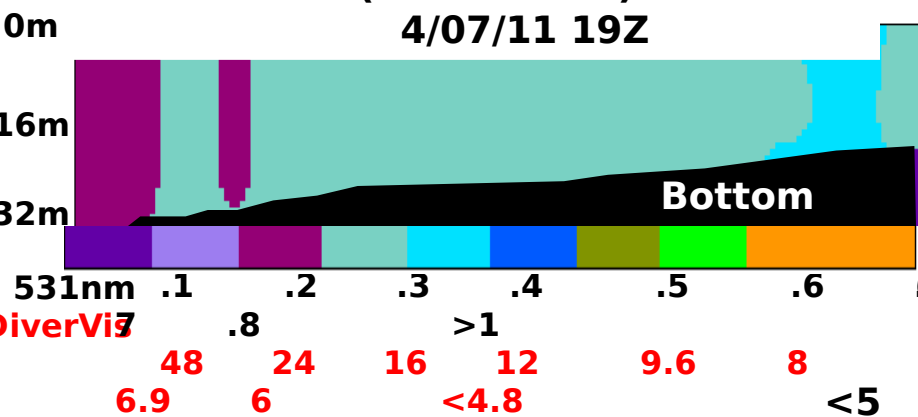


c  
531m  
Diver  
Vis

0m  
16m  
32m

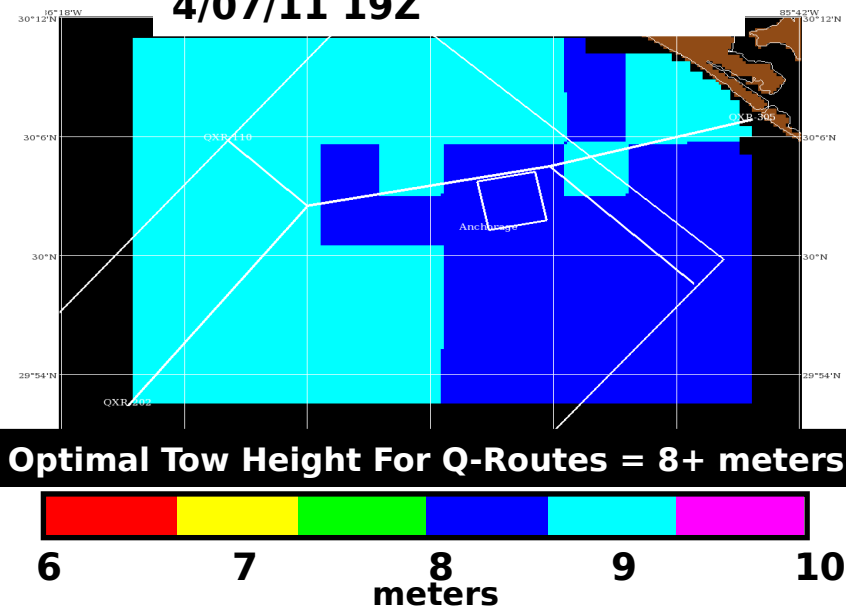
3D Beam-c / Diver Visibility  
Slice (West->East)  
4/07/11 19Z

0.1 0.2 0.3 0.4 0.5 0.6 (1/meters)  
0.8 >1 meters  
48 24 16 12 9.6 8 6.9  
6 <4.8



Optimal Tow Altitude

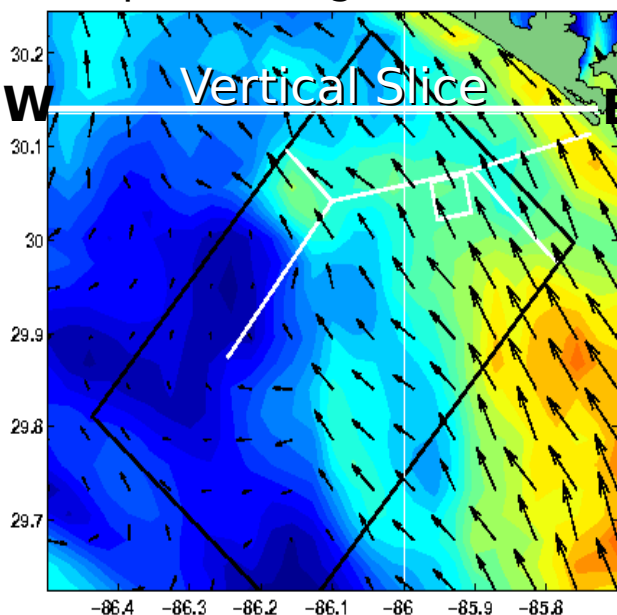
4/07/11 19Z



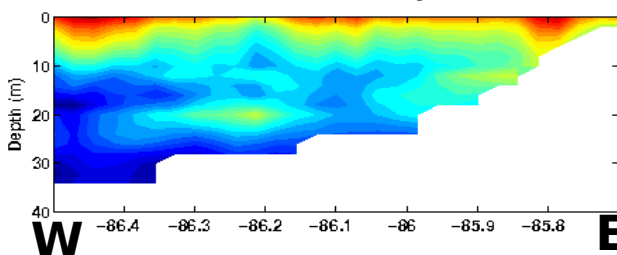
Optimal Tow Height For Q-Routes = 8+ meters!

# Physical Model Nowcast & Forecast – April 05, 2011

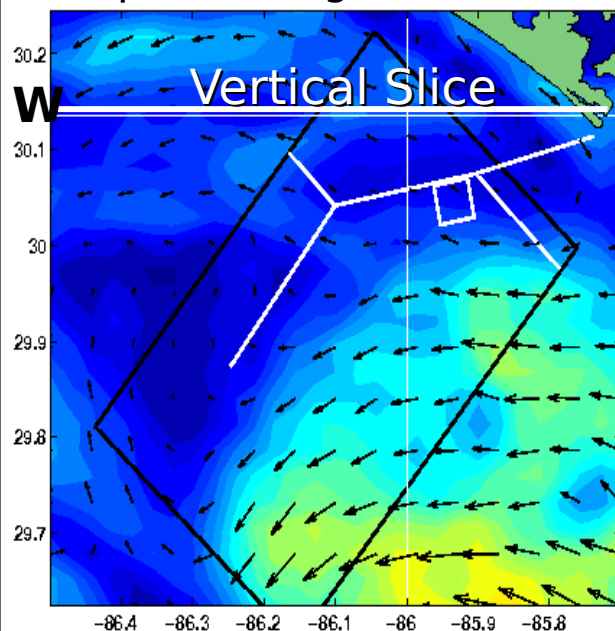
April 05, 2011 00Z  
Depth Averaged Currents



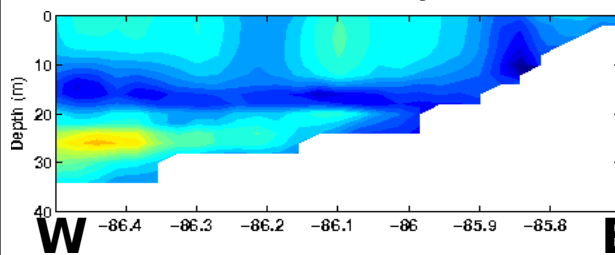
Vertical Slice Velocity @ 30.14N



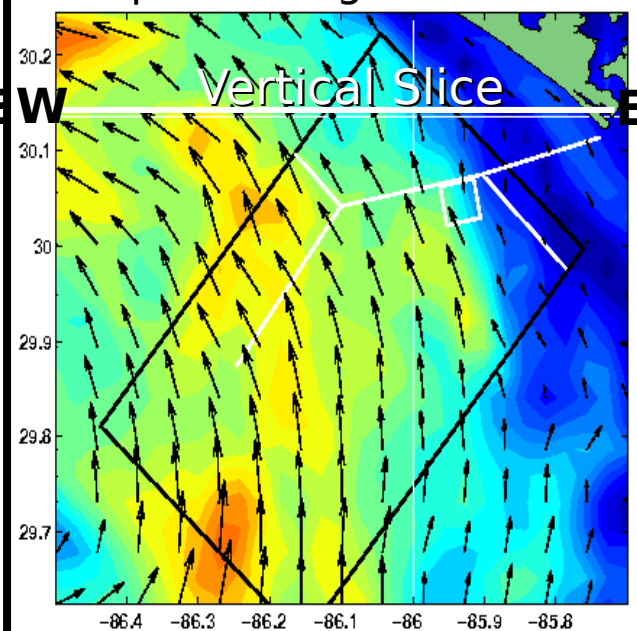
April 06, 2011 00Z  
Depth Averaged Currents



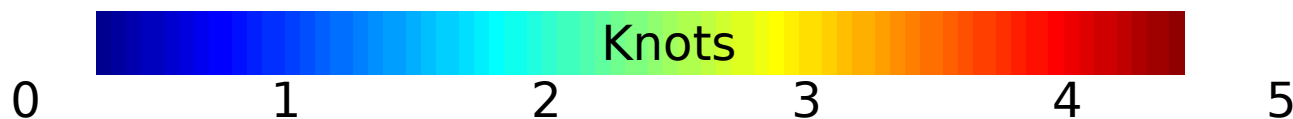
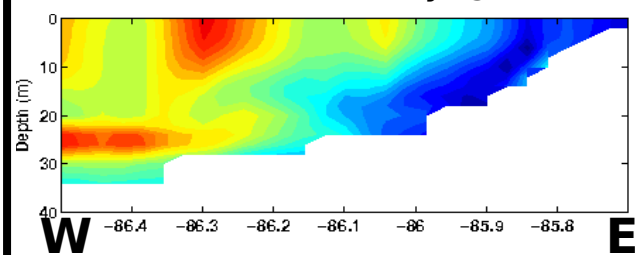
Vertical Slice Velocity @ 30.14N



April 07, 2011 00Z  
Depth Averaged Currents



Vertical Slice Velocity @ 30.14N

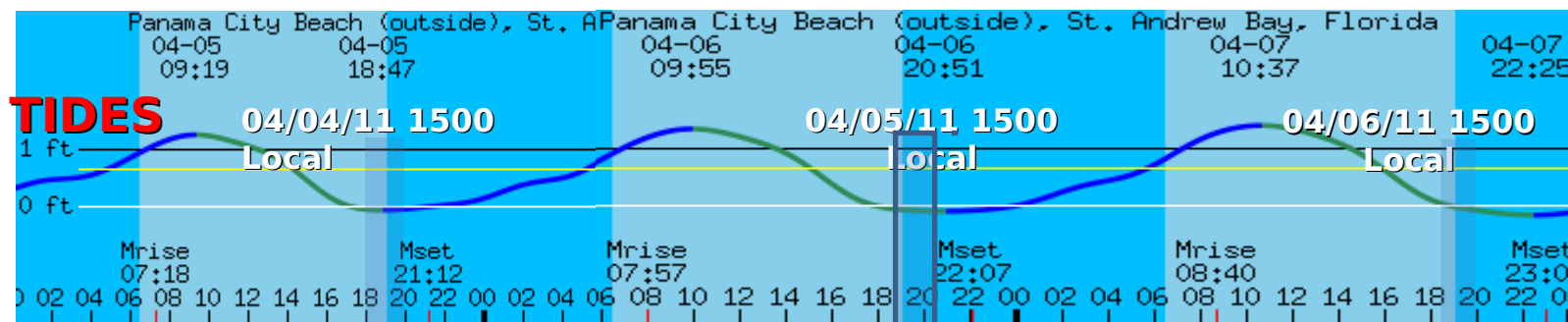
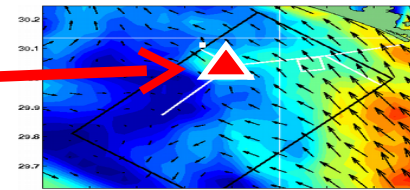




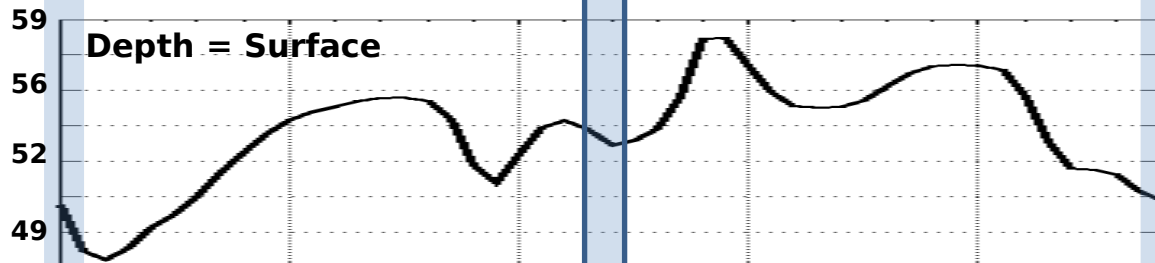
# 04/05/2011

## TIME SERIES @ 30.05N, 86.1W

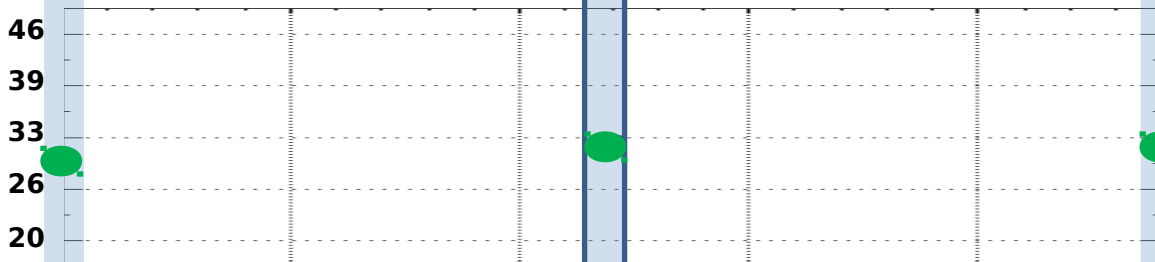
### FORECAST OVER NEXT 48 HOURS



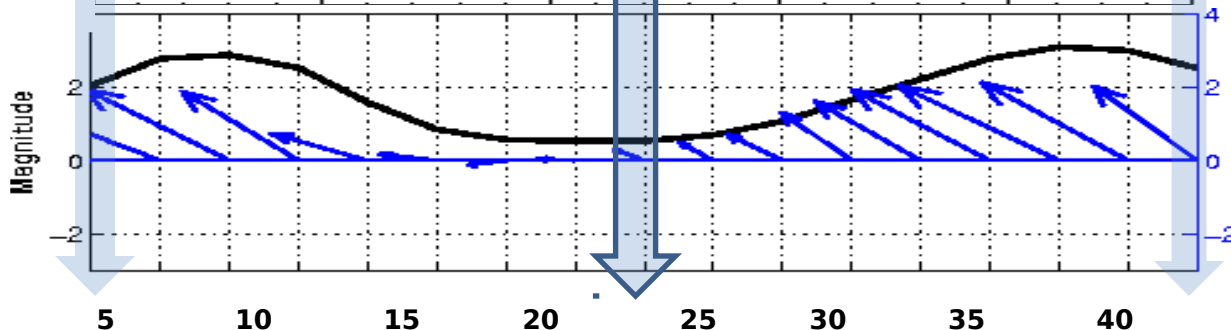
**Horizontal  
Diver Visibility  
Forecast  
(Feet)**



**Optimal  
Tow  
Altitude  
(Feet)**



**Modeled  
Depth  
Averaged  
Currents  
(Knots)  
=Solid Line**



**No Target  
ID?**

**?  
Color  
Of  
Circle**

**Yes  
Circle**

**Direction  
= Vectors**

# Summary

- 1.** Surface and subsurface turbidity (beam-c) range from 0.2-0.4 m<sup>-1</sup> in op-area for today (04/05/11 19Z), tomorrow (04/06/11) and for 48 hour forecast (04/07/11 19Z). (See Slides 2,3,4)
- 2.** Surface and subsurface diver visibility (horizontal) range from 39-79 feet in op-area for today (04/05/11 19Z), tomorrow (04/06/11 19Z) and for 48 hour forecast (04/07/11 19Z). (See Slides 2,3,4)
- 3.** Sytem Performance: Today (04/05/11 19Z), tomorrow (04/06/11 19Z) and 48 Hour Forecast (04/07/11 19Z) expect ID and Detection over 100% in Q-Routes.
- 4.** Today (04/05/11 19Z), tomorrow (04/06/11 19Z) and 48 hour forecast (04/07/11 19Z) predicted tow heights range from 26-33 feet in Q-Routes. (See Slides 2,3,4)
- 5.** Time Series at Surface for Location 30.05N and 86.1W: Horizontal Diver Visibility ranges from 47 to 58 feet during period starting 04/05/11 19Z to 4/7/11 19Z. Optimal Tow Height is ~30 feet during same 48 hour period yielding high probability of target ID. Surface currents during the same 48

**Note: Good satellite scenes collected on 3/25/11, 4/01/11, & 4/03/11.**

## **contact Info:**

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## **Feedback Very Important!**

**Positive or Negative**  
**How are products being used?**  
**Changes/Needs/Suggestions**